

ABSTRACT

A dual actuator pivot bearing system and method for making the same is disclosed, wherein the need for adhesive bonding is eliminated and assembly time is minimized. The dual actuator pivot includes a first and a second actuator bearing assembly that include an upper sleeve having an upper and lower ball bearing press fitted into the upper sleeve to form the first actuator bearing assembly and a lower sleeve having an upper ball bearing press fitted into the sleeve to form the second actuator bearing assembly, the first and second actuator bearing assemblies being press fitted to a shaft assembly comprising a shaft having a ball bearing press fitted at a shaft base. The first and second actuator bearing assemblies are press fitted using a predetermined axial load that is tuned to select a desired resonance frequency for the first and second actuator bearing assemblies. The shaft may also include steps selected to have diameters matching bearing bore diameters graded from large to small going from a first end of the shaft to a second end of the shaft.

Further, the shaft may be chilled to shrink the shaft. Alternatively, the components may be heated.